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TELESCOPING SUPPORTS

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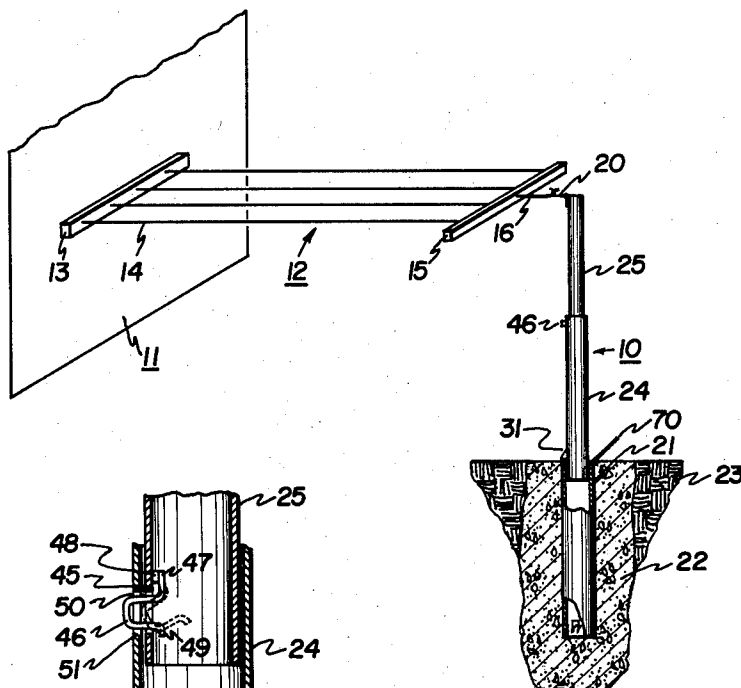


FIG. 1

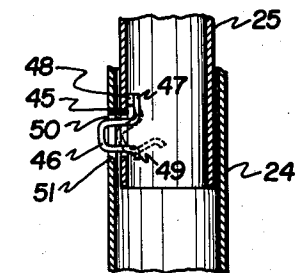


FIG. 2

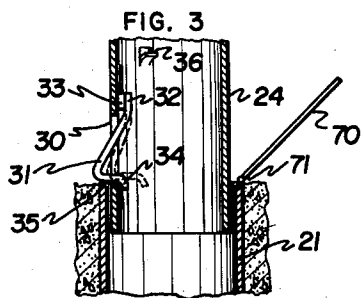


FIG. 3

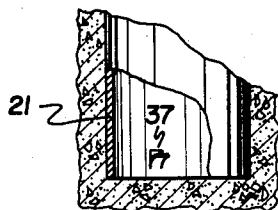


FIG. 4

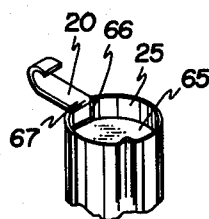


FIG. 5

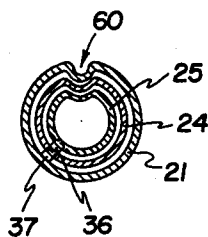


FIG. 6

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1

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This invention relates to supports and more particularly to improved telescoping clothesline support construction.

A variety of extensible support constructions have been suggested; some of them being of the clothesline support type. Conventionally, pegs and slots or rack and pinion type arrangements have been utilized for maintaining support parts in extended position; and in the case of the rack and pinion, additionally serving as a means by which the extension and retraction of the support is accomplished. However, the cost of fabrication and susceptibility of malfunction of parts has prevented to a good extent the foregoing from being commercially acceptable.

Accordingly, it is an object of this invention to provide improved support constructions; which constructions are particularly adapted for use as clothesline supports; which are simple in construction, relatively easy to manufacture; and yet which are rugged enough to stand up under long and rough usage.

Briefly, in one embodiment of the invention, telescoping clothesline supports embodying my concepts include a plurality of tubular telescoping sections. The largest and lowermost section is adapted to be fixed below ground level with its top opening substantially flush with the surface. The intermediate section includes means adapted to automatically lock and hold it at an extended position when extended from the section in the ground. A third telescoping section likewise carries automatic lock and hold means adapted to maintain it in its extended position. The third or top section further includes a hook arrangement adapted for interconnection with a clothesline support bar or the like.

Those portions which act to automatically lock the respective sections in extended position are easily manually disengaged to allow collapse of the support within the lowermost member, below ground surface.

Other features and further objects and advantages of telescoping supports constructed according to the concepts of this invention will become apparent to those skilled in the art from a study of the following detailed description with reference to the drawings in which like reference numerals are used to designate like parts in several views. In these drawings:

FIG. 1 is a fragmentary perspective view in partial section of a telescoping support according to this invention in use as a clothesline support;

FIG. 2 is a fragmentary side elevation in partial section illustrating a locked position between the intermediate and lower of the tubular sections of FIG. 1;

FIG. 3 is a fragmentary side elevation in partial section illustrating a locked position between the intermediate and upper section of the support of FIG. 1;

FIG. 4 is a fragmentary side elevation partially broken away and in a partial section of the lower end of the lowermost support section of FIG. 1;

FIG. 5 is a sectional view of the three tubular sections of the support arrangement of FIG. 1 in their collapsed position showing cooperation between parts; and

FIG. 6 is a fragmentary perspective view of the top of the upper support section.

In FIG. 1 a telescoping clothesline support is generally indicated by reference character 10 as spaced a distance from a wall 11 of a house or other building and having extended therebetween a plurality of clotheslines 12. The arrangement of clotheslines shown in FIG. 1 is of the type which includes a box or tubular member 13 carrying a spring-tensioned reel upon which the plurality of spaced

2

clotheslines 14 are wound. The forward end of each line 14 is attached to the bar 15. In operation hook 16 of bar 15 is engaged and moved away from wall 11 thereby drawing the plurality of lines 14 from their reel, as shown in FIG. 1.

The hook 16 is adapted to be connected to the hook 20 of the support arrangement 10. The support arrangement 10 includes a first and larger member 21 set in concrete 22 beneath the surface of the ground 23. A second or intermediate tubular member 24 is adapted for freely slidable telescoping relation within the lower member 21; and a third and smaller tubular member 25 is adapted for telescoping within the larger two members 21 and 24.

Referring to FIG. 2, adjacent the lower end of tubular member 23 is an aperture 30 through which a latch spring 31 is adapted to move. The upper end 32 of spring 31 is affixed to a block 33 which is mounted on an interior wall of tubular member 24 adjacent the upper extremity of aperture 30. The lower end of the spring 31 includes a hook 34 adapted to seat below the periphery of the opposite or lower end of aperture 30. The spring 31 is characterized by a dogleg shape in which the flattened portion 35 is adapted to seat on the upper peripheral edge of the largest tubular member 21.

Also formed through and from the material of the wall of tubular member 24 is a stop 36. Preferably, the stop 36 is formed by pressing inwardly against the outer wall of the tubular member 24 to provide an inwardly extending tongue. This arrangement provides for support of the upper member 25 when in a support retracted position. A similar stop 37 is formed adjacent the lower periphery of the larger tubular member 21 and serves a like function and as a stop for the intermediate tubular member 24.

The lower end of the upper or smaller tubular member 25 (see FIG. 3) has an aperture 45 formed therethrough. A spring 46 having its upper end 47 attached to a block 48 which is attached to an inner wall of tubular member 25 slightly above aperture 45. The other or lower end of spring 46 is hooked at 49 to seat below the opposite or lower peripheral extent of aperture 45 to limit the outward movement of spring 46.

Spring 46 is preferably so constructed as to have opposed upper and lower flat stretches adapted to lock in aperture 50 formed through the upper periphery of the intermediate tubular member 24 whereby relative vertical movement between parts is prevented. The lower surface 51 of aperture 50 is downwardly sloped to assist in subsequent disengaging of spring 46.

Each of the tubular members 21, 24 and 25 has a ridge formed of its lateral extent. These ridges are generally indicated by reference character 60 in FIG. 5. The depth of these ridges is such that relative twisting movement between the tubular members is prevented while allowing free vertical movement between parts as limited by the spring latches 31 and 50, above described.

Referring to FIG. 6, adjacent the top of tubular member 25 is a wall 65 which, together with the peripheral walls of member 25, forms an open topped cup-like depression. One wall of the cup is slotted as at 66 to provide an opening to one side. The hook 20 is a generally L-shaped member having an arcuate bend adjacent the end of its longer leg. A pin 67 extends through the knee of hook 20 and is interconnected adjacent opposite ends with spaced portions of the slot 66 whereby the hook 20 is free to pivot in and out of the cup.

When it is desired to retract and collapse the support into the ground, the hook 20 serves as a grip whereby the rate of descent of parts is controlled after disengaging the springs 31 and 50. When the members are collapsed within the outer tubular member 21, hook 20 is rotated

3

into the cup and cover 70 is rotated above pivot 71 attached to the upper periphery of tubular member 21 whereby the arrangement is sealed within the ground.

When it is desired to subsequently utilize the support arrangement, the cover 70 is lifted and the short leg of the hook 20 is pressed whereby the bend in the longer leg is extended for easy gripping whereby the structure may be extended to its operative configuration above ground surface.

Having thus described my invention in detail and with sufficient particularity to enable those skilled in the art to practice it, what I desire to have protected by Letters Patent is set forth in the following claims.

I claim:

1. A disappearing support member for a clothesline comprising a first tubular member arranged to be embedded below the surface of the ground with its upper opening at about ground level, a plurality of tubular telescoping members of similar but progressively smaller cross-sectional dimension and each shorter in length than said first tubular member, said plurality of tubular members being telescoped in said first tubular member, support means adjacent to and spaced above the lower end of said first tubular member arranged to support said plurality of tubular members above the lower end thereof, each member including cooperative means with the adjacent members to prevent relative twisting and to allow axial sliding movement therebetween, a spring lock arranged internally and at the lower end of each of said plurality, means on the upper end of each member outside another member cooperative with said spring lock for locking respective tubular members in extended position, clothesline fastening means pivoted to the top of the innermost tubular member and arranged to be moved from an operative position outside the wall of said tubular member and to an inoperative position internally of the wall of said tubular member, inwardly extending stop means on the lower portion of each tubular member for supporting the tubular member inside and each arranged to support the inner tubular member in telescoped position in said

4

first member, and a cap covering the opening of said first tubular member.

2. A disappearing support member for a clothesline comprising a first tubular member arranged to be embedded below the surface of the ground, with its upper opening at about ground level, a plurality of thin walled tubular telescoping members of similar but progressively smaller cross-sectional dimension and each shorter in length than said first tubular member, said plurality of tubular telescoping members being telescoped in said first tubular member, support means adjacent to and spaced above the lower end of said first tubular member arranged to support said plurality above the lower end thereof, each member having a longitudinal groove along its length cooperative with the grooves in the adjacent members to prevent relative twisting and permit axial sliding movement therebetween, a spring lock arranged internally and at the lower end of each of said plurality, means on the upper end of each member outside another member cooperative with said spring lock for locking the respective tubular members in extended position, clothesline fastening means pivoted to the top of the innermost tubular member and arranged to be moved from an operative position outside the wall of said tubular member and to an inoperative position internally of the wall of said tubular member, inwardly extending stop means on the lower portion of each tubular member for supporting the tubular member inside and each arranged to support the inner tubular member in telescoped position in said first member, and a cap covering the opening of said first tubular member.

References Cited in the file of this patent

UNITED STATES PATENTS

368,426	Ruttmann	Aug. 16, 1887
650,446	Barr	May 29, 1900
918,579	Murch	Apr. 20, 1909
1,792,714	Shields	Feb. 17, 1931
1,871,667	Dalton	Aug. 16, 1932
2,653,785	Russa	Sept. 29, 1953